

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

1. Amendments and Support for Same

By the Response, independent claims 1 and 12 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Specifically, claims 1 and 12 have been amended to further recite additional limitations including all of the features of their respective dependent claims 3 and 16. Further support for the amended features of claims 1 and 12 can be found in, e.g., pages 7-8 of the original specification. New dependent claims 22-24 have been added to further complete the scope of protection to which Applicant is entitled. No new matter has been added. Claims 3 and 16 have been cancelled, and claims 4, 5, 8, and 17 have been amended to change their dependency. Accordingly, claims 1-2, 4-15, and 17-24 are respectfully submitted for consideration. Approval and entry of the amendments are respectfully requested.

2. Claim rejections under 35 U.S.C. §112, 2nd paragraph

With respect to the rejection of claims 3-5 and 8 under 35 U.S.C. §112, 2nd paragraph, Applicant has amended independent claims 1 and 12 to include features recited in claims 3 and 16, respectively. Further, Applicant has further clarified that power is or is not supplied the transmitting or receiving units, as shown in amended claims 1 and 12. In view of the amendments and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §112, 2nd paragraph, rejections of claims 3-5 and 8.

3. Rejection under 35 U.S.C. §102(b)

With respect to the rejection of claims 1, 2, 6-9, and 11-13 under 35 U.S.C. §102(b) as being anticipated by Canada (US 5,854,994), Applicant respectfully

traverses the rejection at least for the reason that Canada fails describe each and every limitation recited in the rejected claims.

An embodiment of the present invention provides a solution to problems usually associated with controlling of events occurring in peripheral devices intermittently supplied with electric power, namely those of preserving synchronization between peripheral devices with a central station. Applicant respectfully asserts that, prior to the present invention, a satisfactory solution has not been fully achieved, and only partial solutions are described or suggested by the cited references.

With respect to Canada, the cited reference generally describes a method for monitoring of events by a command station that receives data from wireless machine monitors. In one embodiment of Canada, the machine monitors are not continuously on, but turn on only at preprogrammed times according to turn-on commands generated by a timer circuit within each machine monitor. In another embodiment of Canada, each machine monitor includes a receiver and the command station includes a transmitter to enable the command station to send commands to each machine monitor.

According to lines 48-58 of column 8 of Canada it is stated the following:

"To preclude the possibility of a transmission from one machine monitor 4 interfering with a transmission from another machine monitor 4, data transmission times for each machine monitor 4 are scheduled such that only one machine monitor 4 is transmitting at any given time (time division multiplexing) [emphasis added]. By accurate synchronization of the machine monitor timer 424 with the command station clock, the command station 6 "listens" for the transmission of only one machine monitor 4 at the precise time when the command station 6 has commanded the machine monitor 4 to transmit."

Further, according to lines 15-20 of column 11 of Canada, the above "*accurate synchronization*" of the machine monitor (4) (i.e. peripheral devices) is performed by turning on the receive circuits and by listening for a time message sent by the command station (6) which are transmitted at regular intervals.

In another embodiment described in lines 54-59 of column 9 of Canada, it is provided that alternatively the synchronization of the command station clock with the

machine monitor timer is accomplished initially prior to installation of the machine monitor (4) via an interface cable.

In view of the above, it is understood that in Canada the sole possibility of preserving synchronization of the machine monitors is thus to listen for the time messages sent by the command station at regular intervals. Therefore, Applicant respectfully asserts that the only portion of Canada which is remotely related to the claimed architecture and method involves the intermittently supply with electric power of the peripheral devices and the provision of a phase of synchronization. However, Canada fails to recognize the problems solved by the combination of the features of presently claimed invention for the following reasons:

First, the method of the presently claimed invention is directed to centralized control of events occurring in correspondence with remote peripheral electronic devices which can enter an operational state (i.e. transmit data) at any time and not only at scheduled times corresponding to the time of day produced and transmitted in advance by the command station. In this regard, the functional and structural approaches of Canada and the presently claimed invention are quite different.

As noted above, the command station (6) of Canada produces and transmits scheduling messages which tell the machine monitor (4) when to measure, analyze, and transmit the sensor data and when to receive other messages from the command station. The method of Canada requires that data transmission is performed by the machine monitors only at predetermined scheduled times.

In contrast, the present invention as recited in amended claims 1 and 12 uses a "sync state", i.e. a time synchrony state where the peripheral devices synchronize with a network timing device when said peripheral devices have not received confirmation of the correct reception of transmitted data to the central device, i.e., an indication of lack of synchrony with the central device. Advantageously, this "sync state" allows transmission of data from the peripheral devices at any time, since in case of lack of synchronicity, a synchronization request is emitted by the peripheral device which results in the restoration of synchronization.

However, in Canada, data to be transmitted have to wait until the next scheduled time for transmission with the consequence that critical data like an alarm signal cannot be transmitted immediately. Since, in some critical applications, the time interval between subsequent scheduled times for data transmission cannot exceed

a predetermined security threshold, the consequence is that in Canada the power consumption cannot be reduced to a minimum.

Applicant respectfully reiterates that, while the transition to the "active state" of the machine monitors is only permitted at corresponding scheduled times in Canada, the present invention provides for such transition at any time and whenever necessary.

Secondly, the method according to Canada requires that the command station 6 "listens" for the transmission of only one machine monitor (4) at the precise time when the command station (6) has commanded the machine monitor (4) to transmit.

As previously mentioned, in Canada, to preclude the possibility of a transmission from one machine monitor (4) interfering with a transmission from another machine monitor (4), data transmission times for each machine monitor (4) are scheduled such that only one machine monitor (4) is transmitting at any given time, such as in time division multiplexing.

In contrast, according to the claimed invention, the peripheral devices are free to transmit data at any time, since, if the peripheral device does not receive a string ACK in a predetermined time e.g. due to a collision with another peripheral device transmitting at the same time, it will recognize the state of non-synchronicity with the central device and the CPU of the peripheral device will perform the synchronization loop previously disclosed and will attempt data transmission at a later time.

Thirdly, even if the disclosure of Roberts were considered, in particular paragraph 24 indicated by the Examiner in Section 21 of the Action, there is no suggestion or motivation for the machine monitors to request synchronization when they have not received confirmation of the correct reception of transmitted data to the central device.

According to the claimed invention, the lack of confirmation is interpreted by the peripheral devices as an indication of lack of synchrony with the central device and thus provokes a reaction at the peripheral devices which results in a request of synchronization. Such a request of synchronization allows the peripheral device to attempt data transmission at a later time, thus, on the one hand, overcoming conflicts which can in case occur if more than one peripheral device is communicating simultaneously, and, on the other hand, enabling synchronization.

In view of the arguments set forth above, Applicant respectfully asserts that Canada fails to describe at least a peripheral device configured to switch over transmitting and receiving units according to the following machine states: "sleeping state," wherein the transmitting and receiving units are not supplied with power, "passive state," wherein the receiving unit is supplied with power and the transmitting unit is not supplied with power, "active state," wherein both the transmitting and receiving units are supplied with power, wherein the peripheral device comprises means for imposing to said peripheral device a "sync state" where the peripheral device synchronizes by means of a synchronization protocol with a network timing device, when the peripheral device has not received confirmation of the correct reception of transmitted data to the central device, the lack of confirmation being an indication of lack of synchrony with the central device, as recited in independent device claim 1 and its corresponding method claim 12.

Consequently, since each and every feature of the present claims is not taught (and is not inherent) in Canada, as is required by MPEP Chapter 2131 in order to establish anticipation, the rejection of claims 1, 4-6, and 10, under 35 U.S.C. §102(b), as anticipated by Canada is improper.

In view of the amendment and arguments set forth above, Applicant respectfully requests that the examiner consider Canada its entirety as set forth in MPEP 2141.02(VI), and that the §102(b) rejection be reconsidered and withdrawn.

4. Rejection of claims 3-5 under 35 U.S.C. §103(a)

With respect to the rejection of claims 3-5 under 35 U.S.C. §103(a) as being unpatentable over Canada in view of Chien (US 5,627,882), Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of independent claims 1 and 12, and for the reason that Canada and Chien, combined or separately, fail to teach, disclose, or suggest all of the limitations recited in the rejected claims.

Chien generally describes a method for enhanced power saving in a cordless phone system. According to Chien, enhanced power saving is achieved in a standby mode in which a receiver changes the scan rate as a function of standby time and

enters a sleep mode if no incoming signal is received or no outgoing signal is transmitted. However, Chien fails to cure the above-discussed deficiencies of Canada. Particularly, Chien fails to teach, disclose, or suggest at least a peripheral device configured to switch over transmitting and receiving units according to the following machine states: "sleeping state," wherein the transmitting and receiving units are not supplied with power, "passive state," wherein the receiving unit is supplied with power and the transmitting unit is not supplied with power, "active state," wherein both the transmitting and receiving units are supplied with power, wherein the peripheral device comprises means for imposing to said peripheral device a "sync state" where the peripheral device synchronizes by means of a synchronization protocol with a network timing device, when the peripheral device has not received confirmation of the correct reception of transmitted data to the central device, the lack of confirmation being an indication of lack of synchrony with the central device, as recited in independent device claim 1 and its corresponding method claim 12.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

Further, according to MPEP §2141(I), Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case. The Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), stated:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

Moreover, according to MPEP §2141(II), when applying 35 U.S.C. §103, the following tenets of patent law must be adhered to:

(A) The claimed invention must be considered as a whole;

(B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and

(D) Reasonable expectation of success is the standard with which obviousness is determined.

In view of the amendment and arguments set forth above, Applicant respectfully asserts that the examiner has failed to follow tenets A-D in the rejection. According, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection of claims 3-5 over Canada and Chien.

5. Rejection of claim 10 under 35 U.S.C. §103(a)

With respect to the rejection of claim 10 under 35 U.S.C. §103(a) as being unpatentable over Canada in view of O'Connor (GB 2271691), Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of independent claims 1 and 12, and for the reason that Canada and O'Connor, combined or separately, fail to teach, disclose, or suggest all of the limitations recited in the rejected claims.

O'Connor generally describes synchronization of a telemetry system having a plurality of remote telemetry devices. According, the O'Connor, when synchronized, the devices transmit and receive data only during discrete time slots which are periodic and message specific.

Applicant respectfully asserts that, similar to Canada, O'Connor only permitted communication at corresponding scheduled times, while the presently claimed invention provides for such transition at any time and whenever necessary. More specifically, O'Connor fails to teach, disclose, or suggest at least a peripheral device configured to switch over transmitting and receiving units according to the

following machine states: "sleeping state," wherein the transmitting and receiving units are not supplied with power, "passive state," wherein the receiving unit is supplied with power and the transmitting unit is not supplied with power, "active state," wherein both the transmitting and receiving units are supplied with power, wherein the peripheral device comprises means for imposing to said peripheral device a "sync state" where the peripheral device synchronizes by means of a synchronization protocol with a network timing device, when the peripheral device has not received confirmation of the correct reception of transmitted data to the central device, the lack of confirmation being an indication of lack of synchrony with the central device, as recited in independent device claim 1 and its corresponding method claim 12.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection of claim 10 over Canada and O'Connor.

6. Rejection of claims 14-15 under 35 U.S.C. §103(a)

With respect to the rejection of claims 3-5 under 35 U.S.C. §103(a) as being unpatentable over Canada in view of Roberts (US 2005-0073991), Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of independent claims 1 and 12, and for the reason that Canada and Roberts, combined or separately, fail to teach, disclose, or suggest all of the limitations recited in the rejected claims.

Roberts generally describes for facilitating the simultaneous synchronization of wireless devices, such as Palm computing devices. In Roberts, the term synchronization is used to indicate the matching of data (i.e., files, content of calendars, etc.) between different devices like Palm handheld computing devices. Roberts solves the problem of existing technology which only permits a single wireless computing device to communicate with a signal persona computer, or a single node on a computer network, as shown in paragraph [0002] of Roberts.

In contrast, the presently claimed invention of amended claims 1 and 12 is related to synchronization wherein timing or a clock of peripheral devices is

synchronized with the one central device, and the sync state corresponds to a time synchrony state. Accordingly, Applicant respectfully asserts that Roberts is not in the same field of endeavor as that of the presently claimed invention, and the reliance on Roberts as a secondary reference in the obviousness rejection is improper and should be withdrawn.

7. Rejection of claims 16 and 17 under 35 U.S.C. §103(a)

With respect to the rejection of claims 16 and 17 under 35 U.S.C. §103(a) as being unpatentable over Canada, Roberts, and Chien, Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of independent claims 1 and 12, and for the above-discussed reason that Canada, Roberts, and Chien, combined or separately, fail to teach, disclose, or suggest all of limitation recited in amended claims 1 and 12.

Applicant notes that the rejection of claim 17 appears in Section 24, pages 11-12 of the Office Action appears incomplete, as there appears to be no discussion of how Roberts may be combined with Canada and Chien.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection of claims 16 and 17 over Canada, Roberts, and Chien.

8. Rejection of claims 18-21 under 35 U.S.C. §103(a)

With respect to the rejection of claims 18-21 under 35 U.S.C. §103(a) as being unpatentable over Canada in view of Ayyagari (US 2001-0024434), Applicant respectfully traverses the rejection at least for the reason set forth above in relation to the §102(b) rejection of independent claims 1 and 12, and for the reason that Canada and Ayyagari, combined or separately, fail to teach, disclose, or suggest all of limitation recited in the rejected claims.

Ayyagari generally describes a method for quality of service (QoS) assurance in a wireless packet data communication system. However, Applicant respectfully asserts Ayyagari fails to teach, disclose, or suggest at least a peripheral device configured to switch over transmitting and receiving units according to the following

machine states: "sleeping state," wherein the transmitting and receiving units are not supplied with power, "passive state," wherein the receiving unit is supplied with power and the transmitting unit is not supplied with power, "active state," wherein both the transmitting and receiving units are supplied with power, wherein the peripheral device comprises means for imposing to said peripheral device a "sync state" where the peripheral device synchronizes by means of a synchronization protocol with a network timing device, when the peripheral device has not received confirmation of the correct reception of transmitted data to the central device, the lack of confirmation being an indication of lack of synchrony with the central device, as recited in independent device claim 1 and its corresponding method claim 12. In other words, Ayyagari fails to cure the deficiencies of Canada.

Further, Applicant respectfully asserts that Ayyagari is not in the same field of endeavor as that of the presently claimed invention, and the reliance on Ayyagari as a secondary reference in the obviousness rejection is improper and should be withdrawn.

In view of the amendment and arguments set forth above, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection of claims 18-21.

9. Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-2, 4-15, and 17-24 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's representative, the Examiner is invited to contact the undersigned at the numbers shown.

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